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THIRD UNITED NATIONS CONFERENCE ON THE EXPLORATION AND PEACEFUL USES OF OUTER SPACE

Report of the Chairman of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space to the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)

Note by the Secretariat

At its forty-first session, in 1998, the Committee on the Peaceful Uses of Outer Space endorsed the recommendation of the Legal Subcommittee (A/AC.105/698, para. 77) that the Chairman of the Legal Subcommittee report to the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) on the work of the Subcommittee, including its achievements, current work and new challenges in the development of space law.[1] The attached report has been prepared pursuant to that recommendation.[2]

Notes

[1] *Official Records of the General Assembly, Fifty-third Session, Supplement 20* (A/53/20), para. 159.

[2] A draft text prepared with the assistance of the Secretariat pursuant to the recommendation of the Legal Subcommittee was circulated at the thirty-eighth session of the Subcommittee for comments by member States and those comments have been taken into account in the preparation of the final text of the present report. However, this is a report of the Chairman of the Legal Subcommittee and its content, in particular the chapter on new challenges in the development of space law, does not necessarily reflect the views of the Legal Subcommittee.

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Annex

Achievements of the Legal Subcommittee, its current work and future challenges in the development of space law

Contents

		Paragraphs	Page
I.	Background	1-4	4
A.	Establishment of the Legal Subcommittee	1	4
B.	The Working Methods of the Legal Subcommittee	2-4	4
II.	Achievements of the Legal Subcommittee	5-38	4
A.	The period between the inception of the Legal Subcommittee and the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE) (1962-1968)	5-15	4
1.	Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space	6-7	4
2.	Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies	8-11	5
3.	Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space	12-15	6
B.	The period between UNISPACE and the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) (1968-1982)	16-28	6
1.	Convention on International Liability for Damage Caused by Space Objects	17-20	6
2.	Convention on Registration of Objects Launched into Outer Space	21-24	7
3.	Agreement Governing the Activities of States on the Moon and Other Celestial Bodies	25-28	8
C.	The period between UNISPACE 82 and the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) (1982-1999)	29-38	9
1.	Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting	30-31	9
2.	Principles Relating to Remote Sensing of the Earth from Outer Space	32-33	9
3.	Principles Relevant to the Use of Nuclear Power Sources in Outer Space	34-36	10
4.	Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries	37-38	11
III.	Current work	39-50	11
A.	Question of the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (agenda item 3)	40	11

		Paragraphs	Page
B.	Matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union (agenda item 4)	41-45	12
C.	Review of the status of the five international legal instruments governing outer space (agenda item 5)	46-50	12
IV.	New challenges in the development of space law	51-73	13
A.	New agenda items currently proposed for the Legal Subcommittee	51-68	13
1.	Commercial aspects of space activities (e.g. property rights, insurance and liability)	53-55	14
2.	Review of existing norms of international law applicable to space debris	56-57	14
3.	Legal aspects of space debris	58	14
4.	Comparative review of the principles of international space law and international environmental law	59-61	14
5.	Review of the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting and the Principles Relating to Remote Sensing of the Earth from Outer Space, with a view to possibly transforming those texts into treaties in the future	62	15
6.	Improving the Convention on Registration of Objects Launched into Outer Space	63-64	15
7.	Examination of the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 as a model to encourage wider accession to the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies	65	15
8.	Review of the concept of the "launching State"	66-68	15
B.	New challenges in space law	69-73	16
V.	Conclusion	74-75	16

I. Background

A. Establishment of the Legal Subcommittee

1. In 1962, at its second session, the Committee on the Peaceful Uses of Outer Space decided to establish, along with a Scientific and Technical Subcommittee, a Legal Subcommittee, both of them composed of all members of the Committee, to assist the Committee on the Peaceful Uses of Outer Space in the consideration of the many specific proposals and suggestions concerning scientific, technical and legal studies made by members of the Committee for the development of international cooperation in the field of space exploration for peaceful purposes (see A/AC.105/PV.9, p. 3). The Legal Subcommittee convened its first session on 28 May 1962 (see A/AC.105/C.2/SR.1). Since that first meeting, 37 years ago, the work of the Legal Subcommittee has led to the formulation and development of international space law.

B. The working methods of the Legal Subcommittee

2. The process by which such ground-breaking legal instruments were adopted is an interesting example of productive diplomacy. Usually, member States submit draft proposals for future instruments of international space law to the Legal Subcommittee at its annual meetings.[a] Those draft proposals are then negotiated, debated, discussed and, where scientific and technical issues need to be examined, referred to the Scientific and Technical Subcommittee for investigation. The process extends over a number of successive years, with negotiations held not only in the Legal Subcommittee itself but also between sessions on a bilateral and multilateral basis. This intense, result-orientated process has resolved disagreements and led to compromises by all sides on an issue and thus produced the consensus decision required by the Committee and its two Subcommittees.

3. The consensus procedure of the Committee on the Peaceful Uses of Outer Space and its Subcommittees was introduced in 1962 amid the political tensions that existed between the two space Powers at that time. A disagreement had arisen concerning the working methods of the Committee, with the Union of Soviet Socialist Republics wishing to retain the principle of unanimity in decision-making of the Committee, whereas the United States of America preferred to maintain some form of majority voting procedure. Through informal consultations the Committee reached a political compromise by agreeing on the consensus procedure, but that it would be the aim of all members of the Committee and its Subcommittees to conduct the Committee's work in such a way that the Committee would be able to reach agreement in its work without the need for voting (see A/AC.105/PV.2). To this day, no vote has ever been necessary in the Committee and its Subcommittees.

4. Throughout its history the Committee on the Peaceful Uses of Outer Space has been characterized by the process of consensus and the desire and interest of member States to develop space law, which has led to achievements that are significant for any United Nations organization responsible for negotiating international legal instruments. With the assistance of the Legal Subcommittee, the Committee was able to discuss, negotiate and adopt, even during the cold war, five international treaties and five sets of principles that govern outer space today.

II. Achievements of the Legal Subcommittee

A. The period between the inception of the Legal Subcommittee and the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE) (1962-1968)

5. In the first six years of its work, the Legal Subcommittee finalized the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (General Assembly resolution 1962 (XVIII)) and two international treaties, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (resolution 2222 (XXI), annex) and the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (resolution 2345 (XXII), annex).

1. Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space

6. The discussion of principles for governing outer space began at the first session of the Committee on the Peaceful Uses of Outer Space, in 1961. At that session the States members agreed on a draft resolution that had originally been proposed by the United States, subsequently adopted by the General Assembly as resolution 1721 A (XVI) of 20 December 1961. The main principles agreed upon at that time were that international law, including the Charter of the United Nations, would be applicable to outer space and celestial bodies, and that outer space and celestial bodies were

free for exploration and use by all States in conformity with international law and were not subject to national appropriation. The formulation of and addition to those principles took place, upon the initiative of the Soviet Union, during the first and second sessions of the Legal Subcommittee, in 1962 and 1963. As a result of the deliberations held during those sessions, the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space was adopted unanimously by the General Assembly in its resolution 1962 (XVIII) of 13 December 1963.

7. The Declaration of Legal Principles was the first significant step taken by the United Nations in the progressive development of international space law. The nine principles were the basis upon which the Legal Subcommittee went on to draft the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (the "Outer Space Treaty").

2. Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies

8. The first opportunity the Legal Subcommittee had for formal consideration of the principles and provisions that would later become part of the Outer Space Treaty was its fifth session, in 1966 (see A/AC.105/35). After the adoption of the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space in 1963 (see paras. 6 and 7 above), the Subcommittee had concentrated primarily on the formulation and discussion of the agreement on the assistance to and return of astronauts and space objects, as well as liability for damage caused by space objects. The development and consideration of a treaty governing the exploration and use of outer space and celestial bodies was, however, still part of its mandate during that time.

9. In May 1966, the United States proposed a draft treaty which stated that the Moon and other celestial bodies should be free for exploration and use by all countries; that no country would be permitted to advance a claim of sovereignty; that there should be freedom of scientific investigation and all countries should cooperate in scientific activities relating to celestial bodies; that studies should be made to avoid harmful contamination; that astronauts of one country should give any necessary assistance to astronauts from another; that no country should be allowed to station weapons of mass destruction on a celestial body; and that weapons tests and military manoeuvres should be forbidden. At that time, there was an exchange of correspondence between the United States, the Soviet Union, the Chairman of the Legal Subcommittee and the Secretary-General of the United Nations, and, as a result of those negotiations, agreement was reached that the formal consideration of the draft treaty governing the exploration of the Moon and other celestial bodies, proposed by the United States, and the draft treaty on principles governing the activities of States in the exploration and use of outer space, the Moon and other celestial bodies, which had been prepared and proposed by the Soviet Union, would take place at the fifth session of the Legal Subcommittee. By the end of that session, the member States had reached consensus on many of the provisions of the outer space treaty. Issues that had not been resolved during the session, such as the status of international organizations and whether or not they should be parties to the treaty, whether military equipment could be used on celestial bodies (as in many cases space equipment had been developed through military research), the opportunity to observe the flight of space objects launched by other States and reporting by States on their space activities to the Secretary-General of the United Nations, were subject to various bilateral negotiations and discussions held during the twenty-first session of the General Assembly. Agreement was reached during that session on those issues and on 19 December 1966 the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, was adopted by the General Assembly in its resolution 2222 (XXI). The Treaty was opened for signature on 27 January 1967 in London, Moscow and Washington, D.C., and entered into force on 10 October 1967.

10. The Treaty provides the framework for the peaceful exploration of space and is universally recognized as a cornerstone of international space law. It recognizes the common interest of all mankind in space exploration and the use of outer space, prohibits any national appropriation or territorial claims and applies international law and the Charter of the United Nations to space activities. Furthermore, it prohibits the placing of nuclear weapons or other weapons of mass destruction in orbit or on celestial bodies or stationing them in outer space in any other way. The conduct of States in the exploration and peaceful uses of outer space and how such activities should be carried out is regulated. The Treaty also provides that States shall be held responsible for national space activities, whether carried out by governmental or non-governmental entities, that they are liable for damage caused by their space objects and are required to avoid harmful contamination of space and the celestial bodies.

11. Since its adoption by the General Assembly, 94 States have ratified and 27 others have signed the Outer Space Treaty.

3. Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space

12. The discussions that ultimately led to the adoption of the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the "Rescue Agreement") began during 1962 with an exchange of letters between the United States and the Soviet Union, following which both countries submitted draft proposals to the Legal Subcommittee for consideration. Although similar with respect to fundamental issues such as the launching State retaining jurisdiction over a crashed spacecraft and the need to give all possible assistance to a spacecraft and its personnel in distress, the drafts differed on the issue of the return of space objects, whether it should be unconditional, as proposed by the United States, or only when those objects had identification marks, when their launching had been officially announced and where the objects contained no devices for the collection of intelligence information. Despite progress during 1964 and 1965, by 1967, after various drafts and revised drafts had been submitted by Australia, Canada, the United States and the Soviet Union, agreement has still not been reached on issues such as the removal of hazardous objects, whether the general obligation to assist astronauts and objects also applied to the high seas, the universality of the treaty and the participation of international organizations as parties to it. During the twenty-second session of the General Assembly, in 1967, a series of informal consultations took place between Member States and an agreed text was produced. Following those consultations, a special session of the Legal Subcommittee was held and the negotiated text was presented as a working paper for consideration. The subcommittee revised and amended the text and it was submitted directly to the General Assembly for adoption (see A/PV.1640, paras. 48-159).

13. Although reservations were expressed and some Member States felt that priority should have been given to the liability question, which had been debated in parallel over the years, the Rescue Agreement was adopted unanimously by the General Assembly in resolution 2345 (XXII) of 19 December 1967. The Agreement was opened for signature on 22 April 1968 in London, Moscow and Washington, D.C., and entered into force on 3 December 1968.

14. The Agreement elaborated on the elements contained primarily in articles V and VIII of the Outer Space Treaty. The Rescue Agreement requires States to take all possible steps to rescue and return an astronaut to the launching State in case of accident, distress, emergency or unintended landing. It establishes the obligations of States to provide information on an astronaut in distress and deals with the action a State must take to render assistance to an astronaut who has landed in that State's territory or has landed in an area not subject to the jurisdiction of any State, for example, the high seas. It provides that the launching State, as well as the Secretary-General of the United Nations, must be notified when a space object or its component parts has returned to Earth and been discovered in the territory of another State; that the latter State shall upon the request of the launching State take such steps as it finds practicable to recover the object; and that such objects shall be returned to or held at the disposal of representatives of the launching State, which shall, upon request, furnish identifying data prior to their return. The Rescue Agreement also provides for immediate effective steps to be taken by the launching State to eliminate possible danger of harm, when notified that its object or its component parts is reasonably believed to be of a hazardous or deleterious nature. The launching State shall bear the expenses incurred in the recovery and return of its space object.

15. Since its adoption by the General Assembly, 83 States have ratified and 25 others have signed the Rescue Agreement.

B. The period between UNISPACE and the Second United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE 82) (1968-1982)

16. From 1968 to 1982, work within the Legal Subcommittee resulted in the development of three additional international treaties governing outer space. Those treaties also elaborated upon and expanded the provisions of the Outer Space Treaty.

1. Convention on International Liability for Damage Caused by Space Objects

17. The issue of liability for damage caused by space objects was first brought before the Legal Subcommittee in 1962 (see A/AC.105/6, chap. II, proposal (4)). The issue was of particular importance to both the space and the non-space Powers at the time. It was felt that it was essential for an effective procedure to be established to ensure that compensation would be paid for damage that might be suffered by other States or their nationals as a result of space-related activities. Agreement to consider a liability treaty was reached in 1963. In that same year Belgium submitted a draft proposal, which was followed in subsequent years by drafts

from Hungary, India and Italy. In 1968, the General Assembly requested the Legal Subcommittee to finalize its work on the liability convention and set a deadline for the process. Despite the deadline, the Legal Subcommittee was unable to achieve agreement on a final text. At the end of 1968 and during early 1969, informal consultations took place in New York and New Delhi. Five areas were highlighted as points of discussion: the role of international organizations, nuclear damage, applicable law, limitation of liability and compulsory third-party arbitration. In 1970, further negotiations and consultations were held with a view to arriving at an agreement as soon as possible. Two issues came to the forefront: settlement of claims and applicable law. At the ninth session of the Legal Subcommittee, drafting of the treaty was given priority and a number of articles were agreed upon. However, the issue of compensation proved problematic and no agreement could be reached. The tensions between the United States and the Soviet Union eased during 1970 with regard to outer space cooperation, however, and in 1971 a proposal was submitted by Belgium, Brazil and Hungary based on a package that had been agreed upon by the two major space Powers. The proposal was considered and the text was improved, with the compensation measure being somewhat strengthened. Consensus was finally reached on the proposal within the Legal Subcommittee in 1971 (see A/AC.105/94, para. 22).

18. The Convention on International Liability for Damage Caused by Space Objects (the "Liability Convention") was adopted by the General Assembly, by 93 votes to none, with 4 abstentions, in its resolution 2777 (XXVI) of 29 November 1971. Reservations were expressed by some Member States regarding the provisions relating to the measures of compensation and the settlement of claims (see A/8528). In paragraph 3 of the resolution the Assembly noted that any State might, on becoming a party to the Convention, declare that it would recognize as binding, in relation to any other State accepting the same obligation, the decision of the Claims Commission concerning any dispute to which it might become a party. The Convention was opened for signature on 29 March 1972 in London, Moscow and Washington, D.C., and entered into force on 1 September 1972.

19. The Convention elaborates on the provisions of article VII of the Outer Space Treaty, establishing standards of liability for space-related activities causing damage both on the surface of the Earth and elsewhere. It provides that a launching State shall be absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight. In the event of damage caused elsewhere to a space object of one launching State or to persons or property on board such a space object by a space object of another launching State, the latter would be liable only if the damage was due to its fault or the fault of persons for which it was responsible. However, the Convention limits state liability where the damage caused is due to the gross negligence or intent to cause damage on the part of a claimant State or of natural or juridical persons it represents, unless the launching State's damage results from non-compliance with international law. Furthermore, the Convention does not extend liability for damage or harm caused to nationals of launching States or to foreign nationals participating in the operation of the space object from the time of its launching or of any stage thereafter until its descent. In cases where space ventures involve more than one launching State, provision is made for joint and several liability. A State from whose territory or facility a space object is launched shall be regarded as a participant in a joint launching. The Convention also regulates procedures for presentation of claims for compensation for damage on an inter-State level and does not require the prior exhaustion of local remedies. If no settlement of a claim results from those negotiations a Claims Commission shall be established. Its decisions, however, would be binding only if the parties so agreed.

20. Since its adoption by the General Assembly, 76 States have ratified and 25 others have signed the Liability Convention.

2. Convention on Registration of Objects Launched into Outer Space

21. The registration of space objects was first raised as an issue in 1959 in the Ad Hoc Committee on the Peaceful Uses of Outer Space.[9] In its resolution 1721 B (XVI) of 20 December 1961, the General Assembly requested States to furnish information on objects launched into space to the Committee on the Peaceful Uses for Outer Space. In 1968, France submitted a draft convention concerning registration of objects launched into space for the exploration or use of outer space to the Legal Subcommittee for consideration. However, following a referral to the Scientific and Technical Subcommittee, it was felt that, considering the state of technology at that time, a marking system on objects was not practical. In 1972, Canada also submitted a draft convention on registration of objects launched into outer space. This led to bilateral consultations being held between Canada and France and a joint proposal being presented by the two States. In the following years, further proposals were made by Argentina, Canada, France and the United States. The issues of contention were whether there should be one or more registers, whether the type of information to be registered would be obligatory or optional and whether the marking of space objects would be obligatory or optional. In 1974, the

working group of the Legal Subcommittee examined all the texts and also held several informal meetings to consider the various proposals for a registration convention. A unified draft text was drawn up and agreed upon by the end of the Legal Subcommittee's thirteenth session (A/AC.105/133, paras. 19-25).

22. The Convention on Registration of Objects Launched into Outer Space (the "Registration Convention") was adopted by the General Assembly in its resolution 3235 (XXIX) of 12 November 1974. The Convention was opened for signature on 14 January 1975 in New York and entered into force on 15 September 1976.

23. As the Convention was intended to support the application of the responsibility, return and liability provisions of the Outer Space Treaty, the Rescue Agreement and the Liability Convention, it requires States launching objects into outer space to provide, for inclusion in a United Nations register, information on those objects, including the name of the launching State or States, the date and territory or location of the launch, the basic orbital parameters and the general function of the space objects. A launching State is also required to maintain an appropriate registry of all space objects launched by them into Earth orbit or beyond. Additionally, the Convention sets down a procedure to identify objects that cause damage to a State party or its nationals or juridical persons or that may be of a hazardous or deleterious nature.

24. Since its adoption by the General Assembly, 39 States have ratified and 4 others have signed the Registration Convention.

3. Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

25. The first formal proposal for an international legal regime for the Moon and other celestial bodies was presented by Argentina in 1970. In 1971, the Soviet Union proposed the inclusion of an item entitled "Preparation of an international treaty concerning the Moon" in the agenda of the twenty-sixth session of the General Assembly and submitted a draft treaty concerning the Moon for consideration. This was followed by the submission of a proposal from the United States in 1972. Progress on the issue was made in the discussions of the Legal Subcommittee during those years. By 1972 the areas to be covered by the treaty had been identified. Numerous national submissions were made and in an attempt to combine them Bulgaria submitted two drafts, in 1972 and 1974. No consensus on the text of the treaty could be reached at that stage. Three areas were highlighted as being contentious: the scope of the agreement, the information to be furnished on missions to the Moon and the exploitation, use and legal nature of the Moon's natural resources. Negotiations took place between 1974 and 1977 but still no final agreement could be reached. In 1978, Austria submitted a working paper containing provisions that might form the basis for consensus. The paper was revised by Austria in 1979 to incorporate the result of all the prior negotiations on the draft agreement. The working paper was considered in the working group of the Legal Subcommittee and, based upon its approval there, was submitted for review to the Committee on the Peaceful Uses of Outer Space, where consensus on the text of the agreement was finally achieved.[6]

26. The Agreement Concerning the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement") was adopted, without a vote, by the General Assembly in its resolution 34/68 of 5 December 1979. The Agreement was opened for signature on 18 December 1979 in New York and entered into force on 11 July 1984.

27. The Moon Agreement is the most recent of the space law treaties and reaffirms and elaborates on many of the provisions of the Outer Space Treaty as they apply to the Moon and other celestial bodies. It reaffirms the applicability of international law, including the Charter of the United Nations, to activities on the Moon and other celestial bodies. It provides that the Moon and other celestial bodies are not subject to national appropriation and are to be used exclusively for peaceful purposes, that the environments of those bodies should not be disrupted or contaminated by space activities and that the United Nations should be informed of the location and purpose of any station established on those bodies. The Moon Agreement elaborates on the concept of the exploration and use of outer space as the province of mankind and introduces the new concept that the Moon and its natural resources are the common heritage of mankind. It also provides for the establishment of an international regime to govern the exploitation of the natural resources of the Moon as such exploitation is about to become feasible, taking into special consideration the interests and needs of developing countries, as well as the efforts of those countries which have contributed either directly or indirectly to the exploration of the Moon.

28. Since its adoption only nine States have ratified and five others signed the Moon Agreement.

C. The period between UNISPACE 82 and the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) (1982-1999)

29. From 1982 to date, deliberations within the Legal Subcommittee have led to the drafting and adoption by the General Assembly of the following four additional sets of principles governing outer space.

1. Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting

30. The discussion of issues relating to direct broadcasting by satellite began officially in the Legal Subcommittee at its seventh session, in 1968 (see A/AC.105/45)[4] with the establishment by the General Assembly in its resolution 2453 B (XXIII) of 20 December 1968 of a working group in the Subcommittee to consider technical and economic problems associated with such activities. The opposing views expressed by States concerning the free flow of information and state sovereignty were problematic and controversial. By 1979, after years of ongoing discussion and the submission of numerous draft proposals by various States, a preliminary set of principles was formulated. However, the issues concerning the free dissemination of ideas and information, state responsibility, programme content, consultation and agreement between States, prior consent and state sovereignty remained to be resolved. With regard to the issue of prior consent, delegations from industrialized countries favoured a different approach, viewing the necessity of prior consent as a hurdle to freedom of information. The Soviet Union, however, and developing countries voiced concern that the lack of control over transboundary direct broadcasting by satellites could have a detrimental cultural impact and necessitated the development of a provision for content specification and the inclusion of measures concerning illegal broadcasts. Consensus on the proposed principles dealing with those issues proved illusive. The outstanding and contentious issues were considered at the 1980 and 1981 meetings of the working group of the Legal Subcommittee. However, as a result of States' sensitivities to both the principles of national sovereignty and free communication of ideas and information, consensus could not be reached and no common ground between the divergent views emerged. At that time a proposal by Canada and Sweden was submitted that attempted to develop such a common ground between the contesting views. In an attempt to avoid further delay in their adoption, the set of principles, together with elements of the proposal by Canada and Sweden, were submitted to the General Assembly and were adopted by it by majority vote in resolution 37/92 of 10 December 1982.

31. The Principles provide that international direct television broadcasting by satellite should be carried out in a manner compatible with the sovereign rights of States and with the right of everyone to seek, receive and impart information and ideas. They also provide that access to satellite broadcasting technology should be available to all States, that satellite broadcasting activities should be conducted in accordance with international law and should be based on international cooperation, with special consideration given to the needs of developing countries in the use of that technology for national development. In addition, the Principles provide that States intending to establish or authorize the establishment of an international direct television broadcasting satellite service must without delay notify the proposed receiving State or States of such intention. The broadcasting State shall only establish the service after consultation with any of the requesting States and on the basis of agreements and/or arrangements with those States in conformity with the relevant instruments of the International Telecommunication Union (ITU) and in accordance with the Principles.

2. Principles Relating to Remote Sensing of the Earth from Outer Space

32. Although prior discussions had been held among States about remote sensing, the first formal proposal to regulate remote sensing was presented by Argentina at the ninth session of the Legal Subcommittee, in 1970. Following the recommendation of the Committee on the Peaceful Uses of Outer Space, this item was first placed on the agenda of the Subcommittee in 1971 (see A/AC.105/101). Although five common elements were identified in the various draft texts that were submitted for consideration, there were substantial differences among member States regarding fundamental issues of international law. Concern was felt by developing countries about national sovereignty, and prior consent and control by the sensed State over the distribution of data obtained over their territories were required. A fear existed that exploitation of resources based on satellite data would be to the detriment of some countries. Other countries, however, promoted the freedom of use and non-discrimination in the dissemination of space-derived information. Nonetheless, over time, the Legal Subcommittee succeeded in reaching consensus on the draft principles (A/AC.105/370, paras. 30-36). The reasons for that success lay in the change of the perceptions on the impact of remote sensing: it was felt that in the absence of access to the resources on the ground, the tentative information that could be obtained from inter-

pretation of satellite data was of limited use to the State gathering the information.

33. The Principles Relating to Remote Sensing of the Earth from Outer Space (the "Remote Sensing Principles") were adopted by the General Assembly by consensus in its resolution 41/65 of 3 December 1986. The Principles make provision for the carrying out of remote sensing activities for the benefit and in the interests of all countries, while taking into particular consideration the needs of the developing countries. They provide that activities should be conducted in accordance with international law, to promote international cooperation, for the protection of the environment and the protection of humankind from natural disasters. The sensed State shall have access to the primary and processed data concerning the territory under its jurisdiction as soon as the data are produced, on a non-discriminatory basis and on reasonable terms. On the same basis, the sensed State shall also have access to the available analysed information. In order to maximize the availability of benefits from remote sensing, the Principles encourage regional cooperation in the establishment and operation of collection, storage, processing and interpretation facilities. The Principles also provide that remote sensing activities shall not be conducted in a manner that is detrimental to the legitimate rights and interests of the sensed State.

3. Principles Relevant to the Use of Nuclear Power Sources in Outer Space

34. Following the Cosmos 954 accident in 1978,[6] the issue of nuclear power sources was presented to the Legal Subcommittee in a working paper sponsored by 15 countries. From 1978, the Legal Subcommittee, along with the Scientific and Technical Subcommittee, concentrated its work on four areas: safety; notification, including the kind of information to be included in notices; emergency assistance, including problems of identification, search and recovery; and responsibility and liability for damage. One of the issues that the Legal Subcommittee debated at length was whether or not the use of nuclear reactors should be banned from low-Earth orbits or whether a moratorium should be imposed on the use of nuclear power sources until such time as technology had developed to make the use of nuclear power sources sufficiently safe. Reservations were expressed by the two major space Powers that the options in the use of nuclear power sources should not be overly restricted until their potential as well as the risks involved was fully understood. Consensus within the Legal Subcommittee on the draft principles was made possible following agreement in the Scientific and Technical Subcommittee on the measures necessary to prevent and minimize damage with respect to the use of nuclear power sources and the determination of the maximum exposure level for the general public during the regular use of nuclear power sources.

35. The Principles Relevant to the Use of Nuclear Power Sources in Outer Space were adopted without a vote by the General Assembly in its resolution 47/68 of 14 December 1992. The Principles acknowledge that the use of nuclear power sources may be essential to some space activities and recognize that their use involves some risk of accidental exposure of the public to harmful radiation or radioactive material. Guidelines and criteria for their safe use and the minimization of harm are laid out, including the stipulation that the use of nuclear power sources in outer space should be restricted to those space missions which cannot be operated by non-nuclear energy sources in a reasonable way. The Principles provide that systems using nuclear power sources should be designed with redundancy, malfunction correction systems, containment and isolation and independence of components in order to prevent or minimize exposure of the public to radiation. Nuclear reactors should be designed so as not to become critical before reaching the operating orbit and should be stored after use in an orbit sufficiently high and long-lived to ensure that the radioactivity decays to a safe level before the system re-enters the atmosphere. Radioisotope generators should be designed to be able to withstand atmospheric re-entry and surface impact without spreading radioactive material into the environment. The Principles require a launching State to make a thorough safety assessment of the mission and all systems as well as making public the results of that assessment. Should there be a malfunction of a space object containing nuclear power sources and should a risk of re-entry exist, the launching State is obliged to inform other States and the Secretary-General of the United Nations of the event. Assistance must also be provided to eliminate any harmful effects of such a re-entry. Furthermore, the launching State is liable for any damage caused.

36. A provision was made for the revision of the Principles in case new nuclear power applications and changing radiological protection standards led to a need for such a revision. The issue began to be discussed at the Legal Subcommittee in 1993, but as yet substantive discussion of the item has not been reopened, while the Scientific and Technical Subcommittee has agreed that, at present time, revision of the Principles is not warranted. The item dealing with the question of review and possible revision of the Principles remains on the Legal Subcommittee's agenda for discussion in plenary.

4. Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries

37. Issues relating to outer space benefits were considered and finalized as a new agenda item at the Legal Subcommittee's twenty-sixth and twenty-seventh sessions, in 1987 and 1988. Consideration of the subject was first placed on the Legal Subcommittee's agenda at its twenty-eighth session, in 1989 (see A/AC.105/430, paras. 39-60). The discussions on this topic resulted from the view held by many countries, in particular the developing countries, that there was a lack of any legal effort to ensure that space exploration and application of space technology benefited all countries. The Legal Subcommittee's aim in debating the issue was to develop legal provisions that embodied and promoted the principle of article I of the Outer Space Treaty, namely, that the exploration and use of outer space should be carried out for the benefit and in the interests of all countries. The means of ensuring this was through international cooperation, but the nature and extent of such cooperation needed to be agreed upon. A working paper consolidating the texts of the revised working paper submitted by Brazil and a number of other developing countries and the revised working paper submitted by France and Germany was produced. After extensive informal consultations on the consolidated text at the thirty-ninth session of the Committee on the Peaceful Uses of Outer Space, in 1996, consensus was achieved and the text containing the draft declaration was presented to the General Assembly, which adopted the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, without a vote in its resolution 51/122 of 13 December 1996.

38. The Declaration provides that international cooperation, while taking the particular needs of developing countries into account, should be conducted in accordance with international law and be carried out for the benefit and in the interest of all States, irrespective of their degree of economic, social or scientific and technological development. Although States are free to determine all aspects of their participation, it is provided that contractual terms in such cooperative ventures should be fair and reasonable and that they should be in full compliance with the legitimate rights and interests of the parties concerned. States are encouraged to contribute to promoting and fostering international cooperation on an equitable and mutually acceptable basis. In considering the particular needs of developing countries, international cooperation should aim at the need for technical assistance, and rational and efficient allocation of financial and technical resources, as well as promoting development of space science and technology and of its applications, fostering the development of space capabilities and facilitating the exchange of expertise and technology among States.

III. Current work

39. The Legal Subcommittee is currently considering three substantive items on its agenda.

A. Question of the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (agenda item 3)

40. Principles on the use of nuclear power sources were discussed and developed in the Legal Subcommittee between 1978 and 1992 and the Principles Relevant to the Use of Nuclear Power Sources in Outer Space were finally adopted by the General Assembly in 1992 (see paras. 34-36 above). One of the key elements of the Principles was the inclusion of a clause that envisaged that they could be opened for revision within two years after their adoption by the Assembly in order to consider changes that might be made necessary by new nuclear power applications and changing radiological protection standards. In accordance with that clause, the question of the review and possible revision of the Principles was discussed in 1993. The working group on the subject was re-established in 1993. At the thirty-third session of the Legal Subcommittee, in 1994, it was agreed that consideration of the item by the working group should be suspended pending the result of the work of the Scientific and Technical Subcommittee. The suspension of the working group was without prejudice to the possibility of reconvening the group if the Legal Subcommittee found that sufficient progress had been made by the Scientific and Technical Subcommittee at its thirty-seventh session, in 2000, to warrant its being reconvened. Since 1995 the Legal Subcommittee has not found it necessary to re-establish the working group. At the thirty-seventh session of the Legal Subcommittee, in 1998, it was decided that the working group would remain suspended until and including in the year 2000. However, the item remains on the Legal Subcommittee's agenda for discussion in plenary.

B. Matters relating to the definition and delimitation of outer space and to the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union (agenda item 4)

41. The issue of definition and delimitation of outer space was initially raised in the Ad Hoc Committee in 1959, but at that time discussion of the subject was not considered a priority. It was raised occasionally during the early sessions of the Legal Subcommittee without any substantial result. It was placed on the agenda of the Subcommittee for the first time at its sixth session, in 1967 (see A/AC.105/37). Over the years the item has gone through a number of changes in its title and the wording was settled in its present form in 1985.

42. With relation to the first part of the item, the definition and delimitation of outer space, two opposing views exist within the Legal Subcommittee. One view is that the question of delimitation is part of the more comprehensive legal question of the applicability of the space treaties, that the legal regime of airspace and outer space are based on completely different principles and that it is therefore necessary to have a conventionally defined boundary between airspace and outer space. The opposing opinion is that the need for such a boundary has not yet been established, that there has never been a practical problem caused by the lack of a defined boundary between airspace and outer space in more than 40 years of peaceful exploration and use of outer space and that an attempt to establish such a boundary could create more problems than it would resolve.

43. In 1995, the Legal Subcommittee finalized a questionnaire on aerospace objects, seeking the views of member States on the issues focused upon in the questionnaire. The purpose of the questionnaire was to facilitate consideration of the item and to provide a basis upon which the Subcommittee could decide how to proceed. Although replies have been received to the questionnaire, limited progress has been made thus far through this medium. A proposal was submitted at the thirty-seventh session of the Subcommittee, in 1998, that the legal issues relating to aerospace objects should be dealt with in two stages over a 10-year period, but as yet there is no consensus on the need to consider the proposal. The views of the Subcommittee on the item are still divided and in direct opposition to each other.

44. In relation to the second part of the item, the rational and equitable use of the geostationary orbit, general understanding has been reached that the orbit is a limited natural resource that should be used for the benefit of all mankind and that all countries should have equitable access to it. The Legal Subcommittee is currently in the process of attempting to reconcile various differing viewpoints existing amongst member States on the specific manner in which the use and access to that resource should be managed. Those viewpoints include the following theses: (a) that the geostationary orbit requires a *sui generis* legal regime to regulate access to and utilization of the orbit in order to protect the rights of developing countries and countries that have not yet been able to place a communications satellite in orbit because of financial or technical resource restrictions; (b) that equitable access or preferential rights to the orbit should be considered, in particular in the case of States whose geographical proximity to the geostationary orbit might warrant such measures; (c) that legal regulation of the geostationary orbit is inseparably linked with the freedom of outer space and that ensuring equitable access to the geostationary orbit is the responsibility of ITU, which has sole competence for the coordination and regulation of the radio frequency spectrum; and (d) that any prior claim or reservation of the geostationary orbit is regarded as a form of appropriation of outer space and is thus prohibited under the provisions of the Outer Space Treaty.

45. Various proposals and working papers have been submitted in recent years with the purpose of bringing the Legal Subcommittee closer to agreement on this issue. However, despite intensive ongoing discussion, there still remains a clear division between the different viewpoints on the geostationary orbit.

C. Review of the status of the five international legal instruments governing outer space (agenda item 5)

46. During open-ended consultations in 1995 in which a number of new items for possible inclusion in the agenda of the Legal Subcommittee were discussed, an item entitled "Review of the status of the five international legal instruments governing outer space" was proposed by the delegation of Mexico. In 1996, an informal background note explaining the proposal was submitted to the Subcommittee, followed by a working paper in 1997 (A/AC.105/674, annex II, sect. B). Following extensive consultations among member States, the working paper was revised with a view to reaching consensus on the inclusion of the new agenda item. The Legal

Subcommittee recommended that the item be included in the agenda of its thirty-seventh session in 1998. The recommendation of the Subcommittee was accepted and it was agreed to introduce the item as a part of the Chairman's package concerning the working methods of the Committee on the Peaceful Uses of Outer Space and its Subcommittees, which was adopted by the Committee at its fortieth session, in 1997, and endorsed by the General Assembly in the same year.

47. In accordance with the recommendations made during the fortieth session of the Committee on the Peaceful Uses of Outer Space, the Legal Subcommittee began its consideration of the item at its thirty-seventh session, in 1998 (see A/AC.105/698, paras. 46-64), and established a working group at its thirty-eighth session. In preparation for the discussion of the item by the Subcommittee, the Secretariat prepared a background paper providing the basic historical background on each of the five legal instruments as well as an analysis of the replies received from member States to the Secretariat's invitation to submit their views on the item.

48. Since the Legal Subcommittee commenced its discussion of the item, member States have reported on the status of and further intended actions concerning their own accessions to the five international treaties. The Subcommittee noted that the purpose of the item was not to reopen substantive debate on, to revise or to amend the five international treaties. However, issues relating to the improvement and maximization of accession and adherence to the five international legal instruments as well as the effectiveness of the treaties were raised. It was also felt by some delegations that the discussion concerning the status of the treaties might lead to the identification of additional agenda items aimed at substantive review of the instruments. Various States approached the discussion of the item by proposing practical solutions to improving specific aspects of adherence to the five international instruments, in particular the Liability Convention, the Registration Convention and the Moon Agreement. Other States, however, did not agree with that approach, holding that the five international treaties were by their nature interdependent and that a holistic approach should be taken in their review.

49. The working group convened at the thirty-eighth session of the Legal Subcommittee made the following recommendations on measures to be adopted in order to achieve the fullest adherence to the five international instruments governing outer space: (a) States that had not yet become parties to the five international treaties governing outer space should be invited to consider ratifying or acceding to the treaties in order to achieve the widest applicability of the principles and to enhance the effectiveness of international space law; (b) States should be invited to consider making a declaration in accordance with paragraph 3 of General Assembly resolution 2777 (XXVI), binding themselves on a reciprocal basis to the decisions of the Claims Commission established in the event of a dispute in terms of the provisions of the Convention on International Liability for Damage Caused by Space Objects; and (c) the issue of the strict compliance by States with the provisions of the international legal instruments governing outer space to which they were currently parties should be examined further with a view to identifying measures to encourage full compliance, taking into account the interrelated nature of the principles and rules governing outer space.

50. The issues raised and recommendations made during the discussion of the item by the Legal Subcommittee have laid the foundations for further debate.

IV. New challenges in the development of space law

A. New agenda items currently proposed for the Legal Subcommittee

51. At its thirty-seventh session, in 1994, the Committee on the Peaceful Uses of Outer Space recommended that extensive, open-ended informal consultations be conducted in the Legal Subcommittee with a view to considering, *inter alia*, possible additional items for inclusion in its agenda.[1] In 1995, at its thirty-fourth session, the Legal Subcommittee agreed that delegations proposing new agenda items should provide a brief written analysis of the legal issues associated with them and the areas of international law, including space law, that might already apply to the proposed subject, as well as the intended focus of and time-frame for the consideration of the item (A/AC.105/607, para. 55). At its thirty-ninth session, the Committee on the Peaceful Uses of Outer Space agreed that each proposed item should have a multi-year work plan that would address, among other things, the objectives of the work to be undertaken, any reports to be provided by the Secretariat and member States and the possible end-product.[8]

52. Since the Legal Subcommittee commenced its informal consultations, various members have identified, in addition to the above-mentioned review of the five international legal instruments governing outer space, which has already been adopted as a new item for the Subcommittee's agenda, the following items. (See also A/AC.105/698, chap. IV, sect. A.)

1. Commercial aspects of space activities (e.g. property rights, insurance and liability)

53. This subject was proposed by Argentina and subsequently presented in a working paper at the thirty-eighth session of the Legal Subcommittee (see A/AC.105/C.2/L.215).

54. In its working paper Argentina drew attention to the fact that space activities had ceased to be an issue linked exclusively with States' activity in the public sphere and had become a major source of commercial dealings between States, with substantial participation by the private sector. Argentina therefore considered that it was imperative to establish the basic legal principles that were to govern commercial activities concerned with outer space and that the Committee on the Peaceful Uses of Outer Space was the appropriate body to carry out such a task.

55. While not precluding the possibility that the examination of issues relating to its proposal could call for more extensive work, Argentina proposed a schedule of work to be carried out over a period of three years. The proposal includes the identification of the commercial aspects of space activities that are liable to produce conflicts; a request to be made to States members of the Committee, through the Secretariat, for their opinions in that connection; a further request to States that they submit their domestic legislation and treaty instruments governing those matters; an evaluation of the information received and preparation of preliminary draft guidelines or preliminary drafts of legal principles or rules; the submission of the guidelines or draft principles or rules to member States for examination; and finally the preparation of the preliminary draft guidelines or preliminary drafts of the legal principles or rules intended to resolve conflicts arising from commercial activities concerned with outer space.

2. Review of existing norms of international law applicable to space debris

56. The Czech Republic proposed this subject for discussion in an unofficial background note submitted at the thirty-fifth session of the Legal Subcommittee (A/AC.105/639, annex III, sect. E). The purpose of the consideration of the item was to examine the problem of space debris from the perspective of existing international law that might be applicable to the phenomena of orbital debris. The issues proposed for consideration are whether the definition of the term "space object" as contained in the Liability Convention and the Registration Convention covers space debris; whether the provisions of the Outer Space Treaty concerning the avoidance of harmful contamination of outer space and adverse changes in the environment of the Earth apply to the problem of space debris; whether the protection of ownership of space objects and their component parts should also be extended to space debris; and whether the liability for damage caused to a space object and/or its crew by space debris should depend on the proof of fault, as in the case of a collision of two space objects. The proposal argues that these and other questions are of a legal nature and should be analysed and answered by legal experts.

57. The proposal to consider these questions was not intended to lead to the drafting of new provisions but rather to clarify the issues involved and to help improve the interpretation and application of the existing norms of international space law. The Czech Republic provided a time-frame for consideration of the item.

3. Legal aspects of space debris

58. The proposal to discuss the legal aspects of space debris was made by Brazil and the Czech Republic. At the thirty-seventh session of the Legal Subcommittee, Brazil advised the Subcommittee that in view of the higher priority of other items presented, their proposal could be considered at a later stage (see A/AC.105/698, para. 71 (b)).

4. Comparative review of the principles of international space law and international environmental law

59. Chile proposed the consideration of an item entitled "Comparative review of the principles of international space law and international environmental law" in an unofficial background note submitted at the thirty-fifth session of the Legal Subcommittee (see A/AC.105/639, annex III, sect. F).

60. According to the background note, space technology had proved to be one of the most efficient instruments for dealing with problems that affected the environment. The interrelationship between the different areas of the environment and technological instrumentation (space technology applications), as well as global change leading to a growing number of multilateral treaties covering new fields and realities that did not previously exist could no longer be ignored. A comparative analysis of the norms of space law and environmental law was required not only because of their practical interconnection but also because they reflected the common concern of humanity and, in many cases, problems arose in a sphere that was the common heritage of all mankind. An exact knowledge of the relevant dispositions and key ideas could therefore facilitate the adoption of new conventions with a holistic approach or make possible a more precise legal interpretation of the existing instruments in tune with the global requirements.

61. Chile suggested a schedule for the examination of the proposal and advised the Subcommittee at its thirty-eighth session (see A/AC.105/698, para. 71 (c)) that a work plan would be submitted with regard to it.

5. Review of the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting and the Principles Relating to Remote Sensing of the Earth from Outer Space, with a view to possibly transforming those texts into treaties in the future

62. This item was proposed by Greece, but the delegation advised the Legal Subcommittee at its thirty-eighth session (see A/AC.105/698, para. 71 (b)) that its proposal could be considered at a later stage, as other items being considered could have higher priority.

6. Improving the Convention on Registration of Objects Launched into Outer Space

63. At the thirty-eighth session of the Legal Subcommittee, Germany, on behalf of the States members of the European Space Agency (ESA) and States having signed cooperation agreements with the Agency, submitted a working paper in which it proposed the improvement of the Convention on Registration of Objects Launched into Outer Space (see A/AC.105/698, annex II, working paper of Germany, sect. III).

64. The purpose of the proposal was not to change in any way the text of the Registration Convention itself, but rather to clarify and possibly supplement it with texts reflecting experience with the Convention and new technological and legal developments. The proposal identified five areas of the Registration Convention that could be discussed for improvement and suggested that the results of the discussions, once agreed upon in the Committee on the Peaceful Uses of Outer Space, should be adopted by the General Assembly in resolutions and eventually be transformed into international law as a supplementary international legal instrument to the Registration Convention, ratified by all States. A three-year work plan for the discussion of the proposed item was provided.

7. Examination of the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 as a model to encourage wider accession to the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies

65. This subject was proposed by the Netherlands in its reply to the Secretariat's request for member States' views on the status of the five international instruments (see A/AC.105/C.2/L.210). According to the Netherlands, some of the difficulties encountered with adherence to the United Nations Convention on the Law of the Sea[3] were similar to the constraints to wide adherence to the Moon Agreement. In order to encourage adherence to the latter, consideration should be given to developing a similar instrument to the Agreement relating to the implementation of Part XI of the United Nations Convention on the Law of the Sea of 10 December 1982 (General Assembly resolution 48/263, annex), the "1994 Protocol", as that Agreement did not alter the principle of the common heritage of mankind, but took into account the economic interests of the industrialized countries. At the thirty-seventh session of the Legal Subcommittee, in 1998, the Netherlands advised the Subcommittee that the proposal could be considered at a later stage, as other items being considered could have higher priority (see A/AC.105/698, para. 71 (b)).

8. Review of the concept of the "launching State"

66. Following the proposal made by Germany on behalf of the States members of ESA and States having signed cooperation agreements with the Agency on improving the Registration Agreement (see paras. 63 and 64 above) and based on the proposal by the Chairman at the Legal Subcommittee at the thirty-seventh session that discussions on the subject could be continued in the Committee on the Peaceful Uses of Outer Space in 1998 with a view to reaching possible consensus on including the proposed item in the agenda of the Subcommittee, inter-sessional consultations among interested delegations were held in December 1998.

67. As a result of those consultations, Germany reported that agreement had been reached on the introduction of an item entitled "Review of the concept of the 'launching State' ". The proposal, including a three-year work plan, was circulated for information purposes during the thirty-eighth session of the Legal Subcommittee (A/AC.105/721, annex IV, sect. A) and is to be formally presented for discussion and adoption by the Committee on the Peaceful Uses of Outer Space at its forty-second session, in 1999 (see A/AC.105/721, para. 62).

68. According to the proposed work plan, the Legal Subcommittee would commence its consideration of the item in a working group beginning in 2000 and the plan would include the following: special presentations of new launch systems and ventures; a review of the concept of the "launching State" as contained in the Liability Convention and the Registration Convention and as applied by States and international organizations; and a review of measures to

increase adherence to those Conventions and to promote their full application.

B. New challenges in space law

69. Apart from the items already proposed by delegations for discussion by the Legal Subcommittee, there remain other questions whose resolution could lead to better international cooperation in space. Increased space activities and the phenomenal growth of non-governmental organizations, both national and international, involved in the use and exploration of outer space have led to the emergence of new highly technical issues that could be considered by the Subcommittee.

70. The subject of space debris and the increasing hazards it creates not only for the exploration and utilization of outer space but also for the Earth and its environment, by the collision of space objects with the surface of the Earth, has been proposed for some time. In addition to state responsibility and liability for damage caused by space debris that can be positively identified, concern has been expressed about the damage that unidentified space debris may cause after re-entering the Earth's atmosphere. This issue has been raised in the Legal Subcommittee, but no agreement has been reached to consider it substantively, as some delegations are of the opinion that it would be premature to do so until the investigation and discussion of all the scientific and technical aspects of space debris currently under way in the Scientific and Technical Subcommittee were finalized. The Scientific and Technical Subcommittee adopted a report on the question and some delegations suggested hat the Committee on the Peaceful Uses of Outer Space should decide whether to submit the report to the Legal Subcommittee. The extensive interest in the problem of space debris on the part of the Legal Subcommittee is reflected not only in the fact that two of the new items currently proposed for its consideration relate to that issue, but also in the numerous and intensive discussions that have been held by intergovernmental and non-governmental organizations. For example, in 1994, the International Law Association (ILA), at its sixty-sixth conference, in Buenos Aires, adopted, in resolution 5, the ILA Buenos Aires International Instrument on the Protection of the Environment from Damage Caused by Space Debris, which was made available at the thirty-fifth session of the Scientific and Technical Subcommittee, in 1998 (see A/AC.105/680), and also at the Legal Subcommittee. However, the issue remains on the agenda of the Scientific and Technical Subcommittee and consensus has not been reached on whether and how the Legal Subcommittee should address it.

71. Issues relating to the commercialization and privatization of space have also been highlighted as a result of the growth in the number of non-governmental organizations and industries, both national and international, actively involved or interested in the use, exploration and exploitation of outer space, in particular in satellite telecommunications, in the provision of launching equipment and services and remote sensing. Efforts may have to be made to ensure that space activities continue to be carried out safely, systematically, in an orderly fashion and in accordance with the provisions of the international space treaties.

72. A further issue that has been mentioned as a concern in the Legal Subcommittee is the fact that the process of clarifying issues and, when considered appropriate, of debating and negotiating new agreements, treaties or principles to regulate the ever developing space technology is not adequately keeping pace with the rapid advances in that technology. In many cases, before the Legal Subcommittee can consider the legal implications of certain issues, a scientific and technical investigation is necessary and has to be completed in order for all aspects of the problem to be clarified. An approach to the difficulties experienced in this regard could possibly be, as in other specialized bodies of the United Nations, through a more structured exchange of views concerning the nature and scope of such issues, the practical problems they create for the conduct of space activities and, where appropriate, through the formulation of international space standards and recommended practices. Such a procedure would allow the law not only to keep pace with the rapidly evolving technology relating to space science, exploration and use, but also to update it consistently and keep it in line with the latest technology. This might be particularly appropriate in dealing with, for example, issues relating to standardization in the applications of space technology such as global positioning and satellite navigation systems, which lend themselves to effective regulation through the development of internationally agreed guidelines and practices.

73. A matter to be given some attention might also be how to coordinate the work of the Legal Subcommittee with that of other intergovernmental bodies that formulate international legal instruments relating to space.

V. Conclusion

74. In conclusion it is gratifying to see the contribution that the Committee on the Peaceful Uses of Outer Space, through the work of its Legal Subcommittee, has made to the promotion of international cooperation. The Third United Nations Conference on the Exploration and Peaceful Uses of Outer

Space (UNISPACE III) provides an opportunity to take stock of achievements and the development that has taken place in the field of space law. In keeping with the ongoing enthusiasm for the development of space law, the International Institute for Space Law of the International Astronautical Federation and ESA will be holding two workshops at the Third United Nations Conference, dealing with space law and intellectual property rights in space, respectively.

75. It is hoped that UNISPACE III will lead to an exchange of ideas and encourage further development of international space law and promote international cooperation in space activities and that it will be an incentive to all Member States who have yet not signed and/or ratified the five international treaties governing outer space, as well as to all relevant international organizations who have not yet declared their acceptance of the rights and obligations provided for in those treaties, to do so.

Notes

[a] On a number of occasions in the past, member States have also submitted proposals directly to the General Assembly.

[b] In 1958, the General Assembly established the Ad Hoc Committee on the Peaceful Uses of Outer Space in view of the important contribution that could be made by the establishment within the framework of the United Nations of an appropriate international body for cooperation in the study of outer space for peaceful purposes. In 1959, the General Assembly established the Committee on the Peaceful Uses of Outer Space in its resolution 1472 A (XIV) of 12 December 1959.

[c] *Official Records of the General Assembly, Thirty-fourth Session, Supplement No. 20* (A/34/20), p. 10.

[d] Until 1972 the matter was discussed under the item entitled "Study of questions relative to the utilization of outer space and celestial bodies, including the various implications of space communication".

[e] On 24 January 1978, the crash of the Soviet satellite, the Cosmos 954, which disintegrated over northern Canada, resulted in radioactive debris being scattered over a large area of Canadian territory. Most of the satellite structure burnt up on re-entry into the Earth's atmosphere and no people were harmed. There were a few particles of debris whose radiation was potentially dangerous, but the majority of the particles contained low levels of radiation. The Canadian claim against the Soviet Union was settled bilaterally.

[f] *Official Records of the General Assembly, Forty-ninth Session, Supplement No. 20* (A/49/20), para. 160.

[g] *Official Records of the General Assembly, Fifty-first Session, Supplement No. 20* (A/51/20), para. 152.

[h] *Official Records of the Third United Nations Conference on the Law of the Sea*, vol. XVII (United Nations publication, Sales No. E.84.V.3), document A/CONF.62/122.

[i] Representatives of Argentina, Brazil, the Czech Republic, France, Greece, Hungary, India, Indonesia, Iraq, Japan, Mexico, Pakistan, the Philippines, Poland, the Republic of Korea, Romania, Sweden, Ukraine, the United States of America and Venezuela and ESA attended the meeting. Italy joined the delegations in support of the report presented by Germany.